

Work Order ID 67939

Page 1

Tuesday, April 05, 2011 10:03:09 AM

Item ID: D350-636-015

Accept



Setup Start



Revision ID:

Stop



Item Name: Skidtube STD w/ Training Wearplates, LH

Start Date: 4/4/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 4/8/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

1/20/11

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4168	A								
IIN-D350-636	H								

100

0.00



DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy blue file and type labels per PPP D350-636-015 CHG 001 002

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

110

0.00



Skidtubes

Skidtubes

0.00

Memo

1- Pick D2600-3 Bent

2- Deburr FWD and AFT ends, remove bending marks. Scribe batch# inside AFT end per dwg D4168

3- Drill pilot holes for blade fitting bolt holes using DT8983. Open to 0.500", deburr, section H-H

4- Locate DT8330 off of blade fitting bolt holes and drill pilot holes for blade fitting, section H-H

5- Drill fwd step holes using DT9616. Ensure proper positioning. All holes as per dwg D4168, detail A

6- Drill pilot holes as per Dwg D4168 sheet 4 (D4168-1 details). Drill using drill Jig DT8150 & DT8863A for first side only DT8863B for second side (detail B)

7- Clecko DT8863B on second side of tube and drill pilot holes for detail B.
SECOND SIDE

8- Drill most FWD wearplate hole using DT9678 locating off of 66.54" hole.

9-Open up holes of Detail A to 0.297" (total of 2 holes per side) and .201" (total of 1 hole per side) open holes of detail D section H-H to 0.500" as per dwg D4168

10-Weld D2744 Cap as per Dwg D4168 and QSI 004. Fill grooves in bend left from bending as per QSI 004

1176

BB 11/04/07

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

A/R Aluminum Rod batch: M116577

8611/10/07

11-Grind welds flush as per Dwg D4168

DP 11-4-7

120

QC10- Inspect visual per QSI004- ground welds

0.00



QC

Memo

0.00

Quality Control

130

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

Suloylos

Suloylos

70

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

140

Chemical Conversion Coat per QSI005 4.1

0.00

11-4-8



HandFinish

Memo

0.00

Hand Finishing

150

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

1 0 BE 11/04/08

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	Skidtubes	0.00							
Skidtubes	Memo	0.00							
Skidtubes	1-Open up holes of Detail C and ground handling section AL-AL to 0.625" (total of 8 holes per side) as per dwg D4168.								
	2-Open up holes of Detail B to 0.750" (total of 4 holes per side) as per dwg D4168.								
	3- Open float hole to 0.500" (4 per side) section AJ-AJ								
	Open wearplate holes to size as per dwg (4 holes per sides) , section CG-CG								
	4-Chamfer holes of Detail B, C, ground handling section AL-AL and float holes section AJ-AJ per dwg D4168 (welding instructions on sheet 8)								
	5-Deburr and blow out all chips from inside of tube								
	6- Prepare tube for welding, remove alodine as required.								
	7-Bond web D2739 in place as per QSI 015 A/R <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Sikaflex-291 batch: 110918 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> exp. date: 12/01/15								
	8- Weld spacers D3490-1, D3490-3 and D2743 as per dwg D4168 and D4170-1 & QSI004 (welding instructions on sheet 8) A/R <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Aluminum Rod batch: 1116577								
	9- At section AJ-AJ drill out x-bolt spacer to 0.404"								

BE 11/04/08

11/04/08

BE 11/04/11
BE 11/04/11

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Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

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Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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10-Grind welds flush as per Dwg D4168

11-Spot face ground handling holes section (total of 4 places per side) as per
dwg D4168, section AL-AL

12- C'bore section CG-CG

13- Deburr holes

170



QC

Quality Control

QC10- Inspect visual per QSI004- ground welds 0.00

Memo

0.00

180



QC

Quality Control

QC5- Inspect part completeness to step on W/O 0.00

Memo

0.00

BB

DP 11-4-12

11.04.12

1 0

ml 11 04 12 (1)

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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190 HandFinish	Pressure Wash per QSI005 4.3	0.00							
Hand Finishing	Memo Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch.	0.00				1	0	all	4/10/11
200 Powdercoat	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
Powder Coating	Memo START TIME: 7:35 OVEN TEMPERATURE: 320° FINISH TIME: 8:05	0.00				1	16	11-4-13	
210 QC	QC3- Inspect Part Finish	0.00							
Quality Control	Memo Inspect for foreign object per QSI 024	0.00				1	0	all	11/4/13

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Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

220

0.00



HandFinishing

HandFinish

Memo

0.00

Hand Finishing

✓ 1- Install inserts as per Dwg D4168

1 φ M 4/5/11

230

0.00



HandFinishing

HandFinish

Memo

0.00

Hand Finishing

✓ 1-Inspect for Foreign Objects

✓ 2-Spray inside of tube with "LPS-3" batch: 10/4

3-Install blade fitting D3488-041, wearshoes and ground handling hardware as per dwg D4168

SIKA FLEX 241

BATCH: 1116198

✓ EXP DATE: 12/01

4-assemble o'ring to plug as per dwg D3492 and apply o'ring lube

✓ A/R 55-o'ring lube batch: 1114189

✓ 5-Coat all exposed fasteners with "LPS Procyon" batch: 1114596

1 φ M 4/5/11

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Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

240

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

ml 11 04 14 ⑦

250

Pick Kit

0.00



Packaging

Memo

0.00

Packaging

11/4/11 14 ⑦

260

QC4- 100% Inspect kits for completeness

0.00



QC

Memo

0.00

Quality Control

*****ensure antiseize is on AN8C21A bolts*****

ml 11 04 14 ⑦

W/O:		WORK ORDER CHANGES					
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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

270

0.00



Packaging

0.00

Packaging

Memo

Identify and pack for shipping as per PPPD350-636-015

Location: _____

PPP rev: _____

Packaging

PP 68097

11/4/14 SP

280

0.00



QC21- Final Inspection - Work Order Release

0.00

QC

Memo

Quality Control

11/4/14 J

mf

11-04-14

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Picklist Print

Page 1

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Parent Item: D350-636-015



Parent Item Name: Skidtube STD w/ Training Wearplates, LH

Start Date: 4/4/2011

Required Date: 4/8/2011

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP rev:A 10.09.28 new issue DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

AN3C34A		Purchased	No			230	Each	20.0000	1	1			
---------	--	-----------	----	--	--	-----	------	---------	---	---	--	--	--



BOLT

Location

Loc Qty

Loc Code

ST353

20

116003

20

AN3C36A

Purchased

No

230

Each

209.0000

4

4



BOLT

Location

Loc Qty

Loc Code

FG

14

101261

4

116590

10

FP-B

71

111925

71

ST303

24

116381

2

116590

22

ST353

100

117125

100

AN3C37A

Purchased

No

230

Each

0.0000

1

1



BOLT

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Start Date: 4/4/2011

Required Date: 4/8/2011

Start Qty: 1.00

Required Qty: 1.00

AN3C42A

Purchased No

230 Each

60.0000

1

1

BOLT

Location

Loc Qty

Loc Code

ST354

60

106176

60

D3873-1

Manufactured No

230 Each

177.0000

7

7

Bushing

Location

Loc Qty

Loc Code

ST088

177

64567

77

64760

100

D4154-041

Manufactured No

230 Each

2.0000

1

1

Wearplate Assembly

Location

Loc Qty

Loc Code

FP009

2

65092

2

D4170-1

Manufactured No

230 Each

38.0000

4

4

Bushing

Location

Loc Qty

Loc Code

LG

4

63322

4

LG002

34

65912

23

66158

11

W/O:		WORK ORDER CHANGES					
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Start Date: 4/4/2011

Required Date: 4/8/2011

Start Qty: 1.00

Required Qty: 1.00

D4171-1 Manufactured No

230 Each

16.0000

1

1



Bushing



HL 4/10/13

Location

Loc Qty

Loc Code

ST135

16

65646

16

X1

MS21043-3

Purchased No

230 Each

1,072.000

5

5



Nut



HL 4/10/13

Location

Loc Qty

Loc Code

FG

80

103691

80

FP-B

16

112314

16

ST301

976

112314

976

X5

NAS1149C0363R

Purchased No

230 Each

4,848.000

9

9



Washer



HL 4/10/13

Location

Loc Qty

Loc Code

ST297

4848

113889

79

114742

4769

X9

NAS1515H3L

Purchased No

230 Each

341.0000

4

4



WASHER



HL 4/10/13

Location

Loc Qty

Loc Code

FG

40

102472

40

ST277

301

113362

301

X4

Tuesday, April 05, 2011 10:03:14 AM

Shop Packet Print

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Start Date: 4/4/2011

Required Date: 4/8/2011

Start Qty: 1.00

Required Qty: 1.00

AN960JD816

Purchased No

250 Each

73.0000

2

2



1/2" washer, Alum



Handwritten: 11-10-13

Location

Loc Qty

Loc Code

FP-A

73

106043

73

Handwritten: X2

D2744

Manufactured No

110 Each

47.0000

1

1



Cap



Handwritten: BE 11/04/07

Location

Loc Qty

Loc Code

LG002

47

62715

18

65086

29

Handwritten: 1

D2600-3-BENT

Manufactured No

110 Each

9.0000

1

1



Extrusion Bent



Location

Loc Qty

Loc Code

LG

9

66875

9

Handwritten: 8

D2743

Manufactured No

160 Each

33.0000

8

8



Crossbolt Spacer



*Handwritten: 11-4-6
BE 11/04/11
B 67766 8*

Location

Loc Qty

Loc Code

LG001

33

64003

33

D2739

Manufactured No

160 Each

8.0000

1

1



350 I Beam



Location

Loc Qty

Loc Code

LG

8

67786

8

66981

8

Handwritten: 1

Handwritten: BE 11/04/08

Tuesday, April 05, 2011 10:03:14 AM

Shop Packet Print

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Tuesday, April 05, 2011 10:03:14 AM

Work Order ID: 67939



Parent Item: D350-636-015



Parent Item Name: Skidtube STD w/ Training Wearplates, LH

Start Date: 4/4/2011

Required Date: 4/8/2011

Start Qty: 1.00

Required Qty: 1.00

D3490-3 Manufactured No

160 Each

37.0000

4 4



Cross Bolt Spacer

Location

Loc Qty

Loc Code

LG001

37

63556

8

66968

29

D3490-1 Manufactured No

160 Each

31.0000

4 4



Cross Bolt Spacer

Location

Loc Qty

Loc Code

LG001

31

62450

31

ALS4-1032-225 Purchased No

230 Each

1,305.000

4 4



Insert

Location

Loc Qty

Loc Code

FP-B

224

110768

224

ST282

1081

110768

1081

D3492-041 Manufactured No

230 Each

156.0000

8 8



Plug Assembly

Location

Loc Qty

Loc Code

FP-B

156

63994

16

65068

20

66937

120

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

Picklist Print

Tuesday, April 05, 2011 10:03:14 AM

Work Order ID: 67939



Parent Item: D350-636-015



Parent Item Name: Skidtube STD w/ Training Wearplates, LH

Start Date: 4/4/2011

Required Date: 4/8/2011

Start Qty: 1.00

Required Qty: 1.00

AN8C35A

Purchased No

230 Each

44.0000

1

1



BOLT



4/05/11

Location

Loc Qty

Loc Code

FP-A

44

115188

3

115960

18

116874

23

D3488-041

Manufactured No

230 Each

13.0000

1

1



Blade Fitting Assembly, LH



4/05/11

Location

Loc Qty

Loc Code

FP007

2

61689

2

FP008

11

62002

11

AN6C44A

Purchased No

230 Each

54.0000

4

4



BOLT



4/05/11

Location

Loc Qty

Loc Code

FG

2

103964

2

FP-B

2

115936

2

ST344

50

116874

50

4/4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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Picklist Print

Tuesday, April 05, 2011 10:03:14 AM

Work Order ID: 67939



Parent Item: D350-636-015



Parent Item Name: Skidtube STD w/ Training Wearplates, LH

Start Date: 4/4/2011

Required Date: 4/8/2011

Start Qty: 1.00

Required Qty: 1.00

MS21083C8

Purchased No

230 Each

83.0000

1

1



NUT



Handwritten: 4/4/11

Location

Loc Qty

Loc Code

FP-B

13

115884

13

ST303

70

115884

0

117010

20

117291

50

Handwritten: x1

D3631-1

Manufactured No

230 Each

108.0000

8

8



Handwritten: 4/4/11

Washer

Location

Loc Qty

Loc Code

FP-A

8

63647

8

ST072

100

66959

100

Handwritten: x8

AN960C10L

NAS1149C0332

Purchased No

230 Each

0.0000

4

4



washer

Handwritten: x1 117291



Handwritten: 4/4/11

D2745

Manufactured No

230 Each

64.0000

8

8



Handwritten: 4/4/11

Bushing

Location

Loc Qty

Loc Code

FP-A

23

63315

23

ST021

41

63315

41

Handwritten: 1367764

Handwritten: x8

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Picklist Print

Tuesday, April 05, 2011 10:03:14 AM

Work Order ID: 67939



Parent Item: D350-636-015



Parent Item Name: Skidtube STD w/ Training Wearplates, LH

Start Date: 4/4/2011

Required Date: 4/8/2011

Start Qty: 1.00

Required Qty: 1.00

AN960C816L Purchased No

230 Each

0.0000

1

1



WASHER NAS149C0832R/M114915



(x1) JH 4/04/13

D3492-043 Manufactured No

230 Each

83.0000

8

8



Plug Assembly



JH 4/04/13

Location

Loc Qty

Loc Code

FP-B

83

D67765

xs

66150

8

66931

75

AN3C6A Purchased No

230 Each

280.0000

4

4



JH 4/04/13

BOLT

Location

Loc Qty

Loc Code

FP-A

45

111982

45

x4

ST351

235

111982

10

116419

75

116549

50

116704

100

MS21043-6 Purchased No

230 Each

583.0000

4

4



JH 4/04/13

NUT

Location

Loc Qty

Loc Code

FG

20

103693

20

FP-A

88

112314

88

x4

ST301

475

112314

475

Tuesday, April 05, 2011 10:03:15 AM

Shop Packet Print

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Tuesday, April 05, 2011 10:03:15 AM

Work Order ID: 67939

Parent Item: D350-636-015

Parent Item Name: Skidtube STD w/ Training Wearplates, LH

Start Date: 4/4/2011

Required Date: 4/8/2011

Start Qty: 1.00

Required Qty: 1.00

D3493-1

Manufactured No

250 Each

61.0000

2

2

Washer

Location

Loc Qty

Loc Code

ST062

61

62677

21

66975

40

MS21083C8

Purchased

No

250

Each

83.0000

2

2

NUT

Location

Loc Qty

Loc Code

FP-B

13

115884

13

ST303

70

115884

0

117010

20

117291

50

AN8C21A

Purchased

No

250

Each

56.0000

2

2

BOLT

Location

Loc Qty

Loc Code

ST345

56

116381

56

D2741

Manufactured

No

250

Each

66.0000

1

1

Blade, 350 Skidtube

Location

Loc Qty

Loc Code

ST466

66

61341

26

63589

40

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

QTY -041	QTY -042	QTY -043	QTY -044	PART NUMBER	DESCRIPTION
X				D4168-041	350 SKIDTUBE ASSEMBLY, LH
	X			D4168-042	350 SKIDTUBE ASSEMBLY, RH
		X		D4168-043	350 SKIDTUBE ASSEMBLY, LH
			X	D4168-044	350 SKIDTUBE ASSEMBLY, RH
1	1	1	1	D2739	WEB
8	8	8	8	D2743	SPACER
1	1	1	1	D2744	CAP
8	8	8	8	D2745	BUSHING
1		1		D3488-041	BLADE FITTING, LH
	1		1	D3488-042	BLADE FITTING, RH
4	4	4	4	D3490-1	SPACER
4	4			D3490-3	SPACER
		4	4	D3490-5	SPACER
8	8	8	8	D3492-041	PLUG ASSEMBLY
8	8			D3492-043	PLUG ASSEMBLY
		8	8	D3492-045	PLUG ASSEMBLY
8	8	8	8	D3631-1	WASHER
7	7	7	7	D3873-1	BUSHING
1	1	1	1	D4154-041	WEARPLATE ASSEMBLY
1				D4168-1	SKIDTUBE WELDMENT, LH
	1			D4168-2	SKIDTUBE WELDMENT, RH
		1		D4168-3	SKIDTUBE WELDMENT, LH
			1	D4168-4	SKIDTUBE WELDMENT, RH
4	4	4	4	D4170-1	SPACER
1	1	1	1	D4171-1	BUSHING
4	4	4	4	ALS4-1032-225	INSERT
4	4	4	4	AN3C6A	BOLT
1	1	1	1	AN3C34A	BOLT
4	4	4	4	AN3C36A	BOLT
4	4	4	4	AN6C44A	BOLT
1	1	1	1	AN8C35A	BOLT
9	9	9	9	AN960C10	WASHER (OR NAS1149CO363R)
4	4	4	4	AN960C10L	WASHER (OR NAS1149CO332R)
1	1	1	1	AN960C816L	WASHER (OR NAS1149CO832R)
5	5	5	5	MS21043-3	NUT
4	4	4	4	MS21043-6	NUT
1	1	1	1	MS21083C8	NUT
4	4	4	4	NAS1515H3L	WASHER

GENERAL NOTES:

- MATERIAL: MAKE D4168-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
- FINISH:
 - CHEMICAL CONVERSION COAT PER OART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.
 - POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
 - BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).
- TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- UNITS: INCHES UNLESS OTHERWISE NOTED
- BREAK SHARP EDGES: N/A
- IDENTIFICATION: N/A
- WEIGHT: D4168-041/-042/-043/-044 = 32.3 LBS
- WELD PER DART QSI 004
- FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:
 - MINIMUM YIELD TENSILE STRENGTH = 35 KSI
 - MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI
- COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF
- POWDER COATING WITH MEK DEGREASER.
- SPACER AND PLUG INSTALLED SAME AS SECTION AJ-AJ EXCEPT HORIZONTAL
- SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL

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RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 67939

PL11-04-5

RELEASED
2010-09-15

A		NEW ISSUE		SC	10.08.09
REV.		DESCRIPTION		BY	DATE
DESIGN	SC	DART AEROSPACE USA, INC.			
DRAWN	SC	PORT HADLOCK, WA			
CHECKED		DRAWING NO.	REV. A		
MFG. APPR.		D4168	SHEET 1 OF 11		
APPROVED		TITLE	SCALE		
DE APPR.		350 SKIDTUBE ASSEMBLY	NTS		
DATE	10.08.09	<small>COPYRIGHT © 2010 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>			

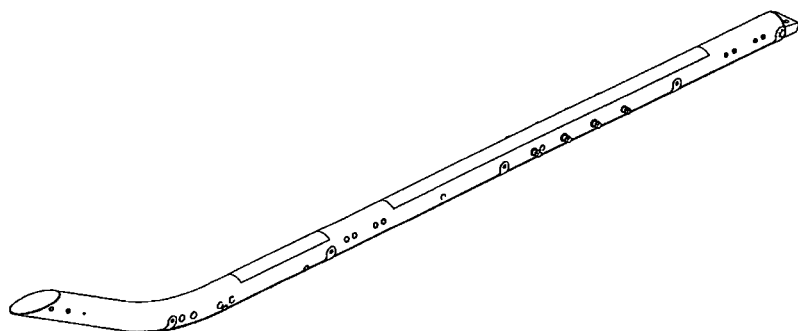
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

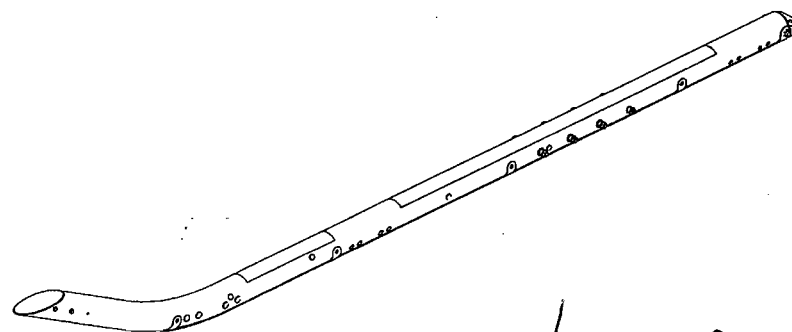
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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D4168-041 350 SKIDTUBE ASSEMBLY, LH



D4168-042 350 SKIDTUBE ASSEMBLY, RH

w/1067939

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2010-09-15
JM

DESIGN	SC	DART AEROSPACE USA, INC.	
DRAWN	SC	PORT HADLOCK, VA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. A
MFG. APPR.	<i>[Signature]</i>	D4168	SHEET 2 OF 11
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	350 SKIDTUBE ASSEMBLY	NTS
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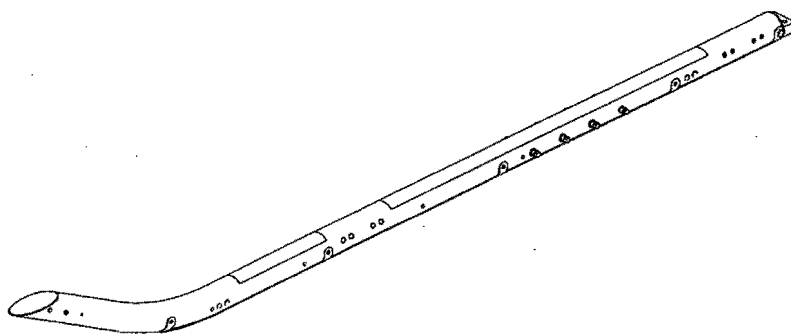
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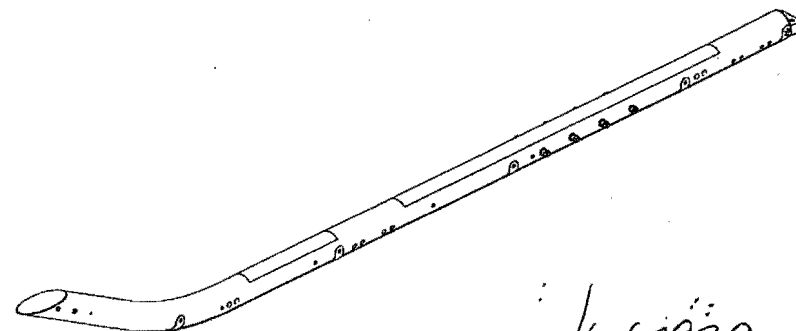
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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D4168-043 350 SKIDTUBE ASSEMBLY, LH



D4168-044 350 SKIDTUBE ASSEMBLY, RH

u 16 47939

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2010-09-15

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DRAWN	SC	PORT HADLOCK, WA	
CHECKED	<i>[Signature]</i>	DRAWING NO. D4168	REV. A
MFG. APPR.	<i>[Signature]</i>	SHEET 3 OF 11	
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	350 SKIDTUBE ASSEMBLY	NTS
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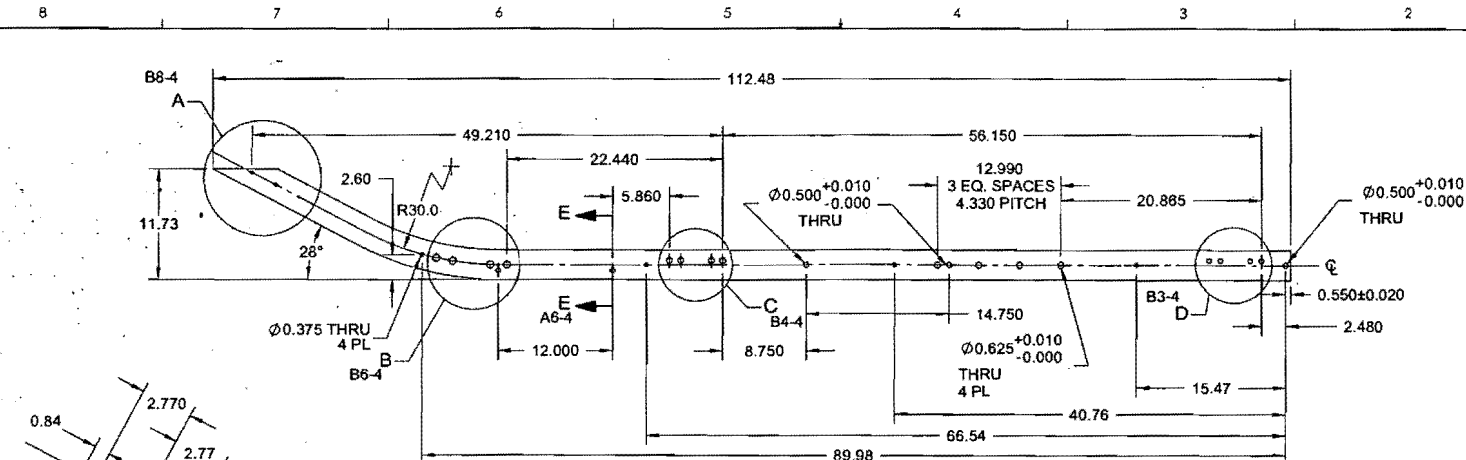
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

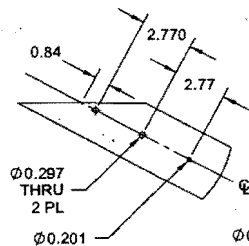
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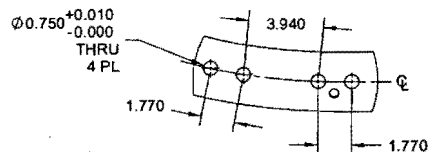
NOTE: Date & initial all entries



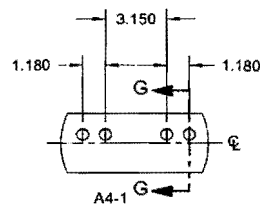
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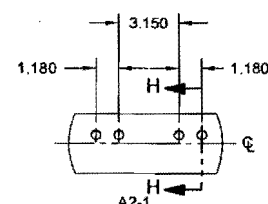
DETAIL A
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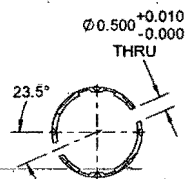
DETAIL B
SCALE 2X



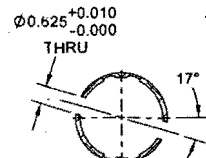
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SCALE 2X



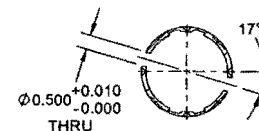
DETAIL D
SCALE 2X



SECTION E-E
SCALE 3X, 2 PL



SECTION G-G
SCALE 3X, 4 PL



SECTION H-H
SCALE 3X, 4 PL

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2010-09-15

DESIGN		SC	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
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CHECKED			DRAWING NO.	REV. A
MFG. APPR.			D4168	SHEET 4 OF 11
APPROVED			TITLE	SCALE
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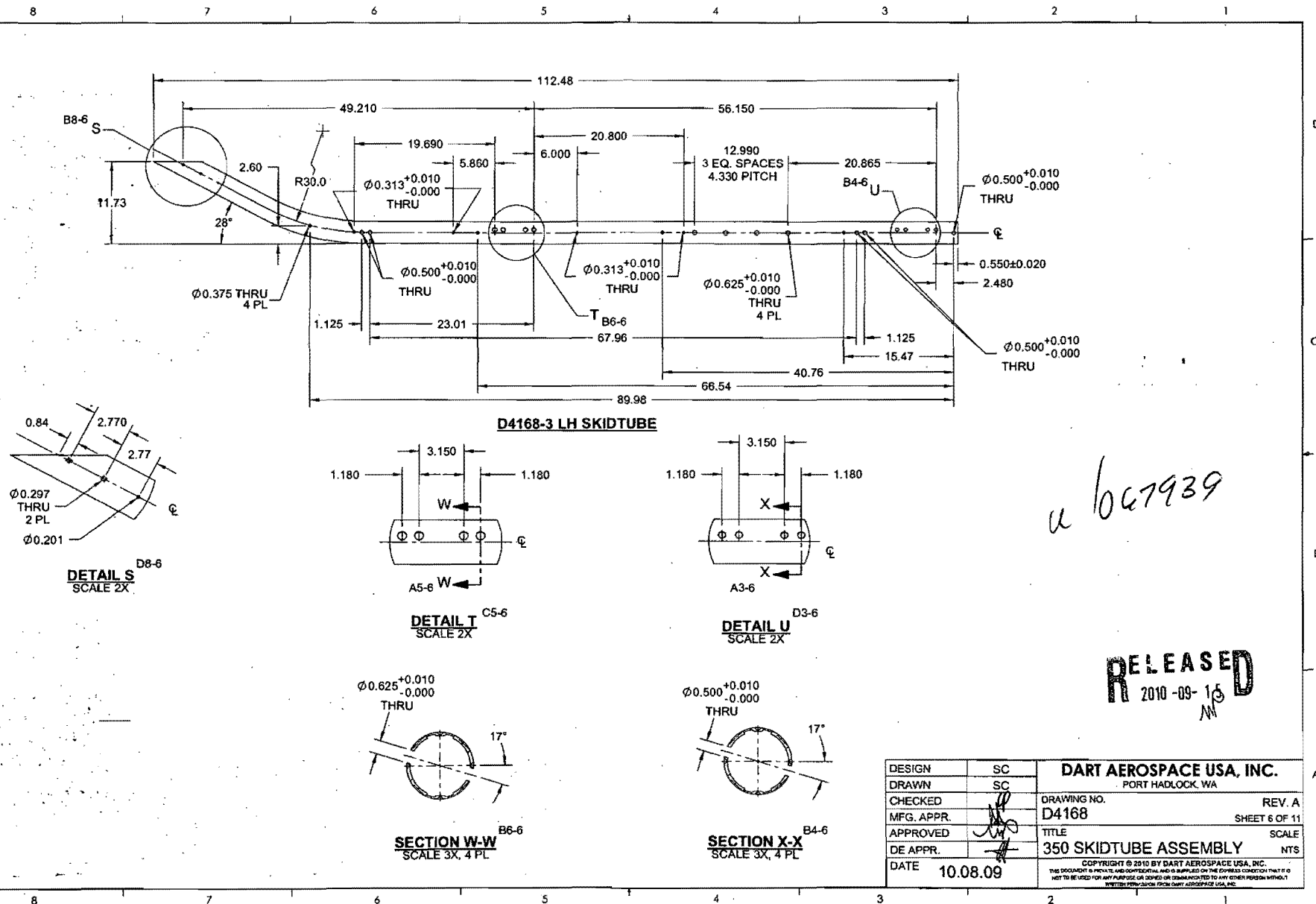
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

8 7 6 5 4 3 2 1

D

D

C

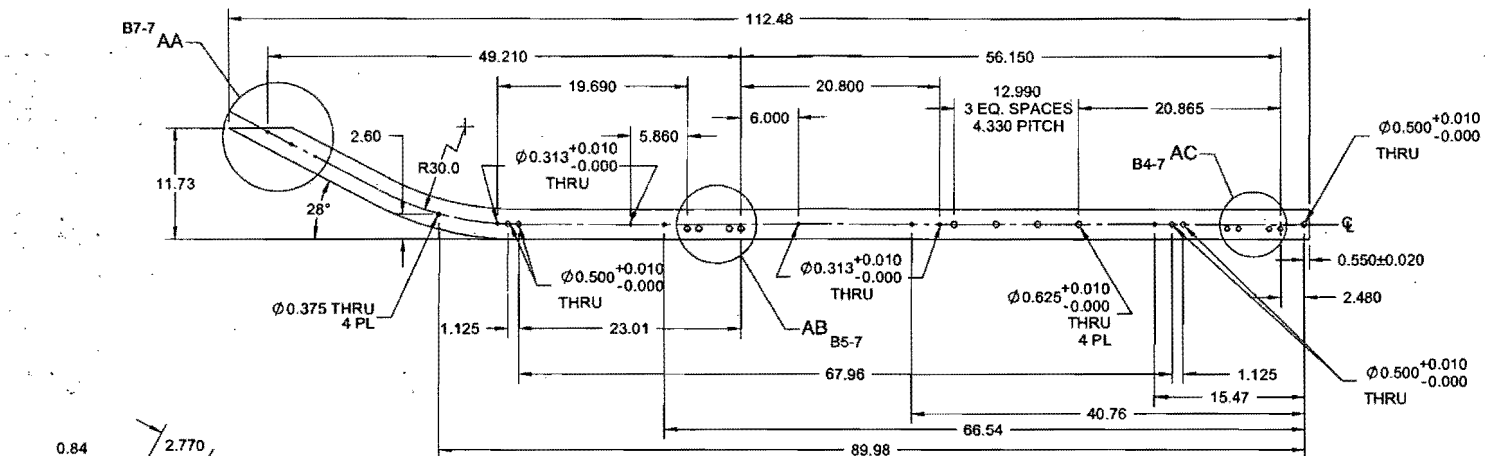
C

8

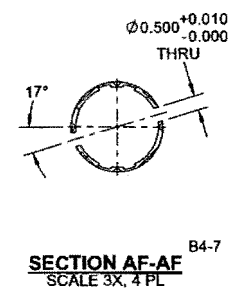
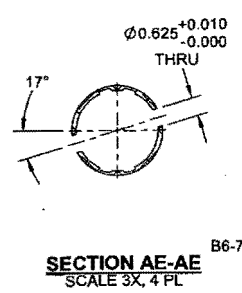
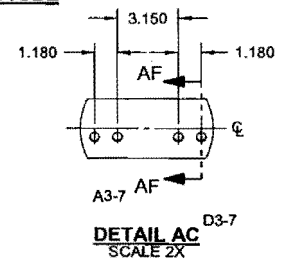
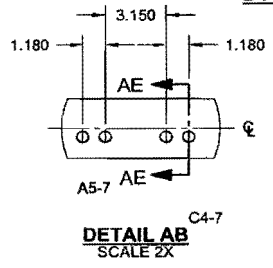
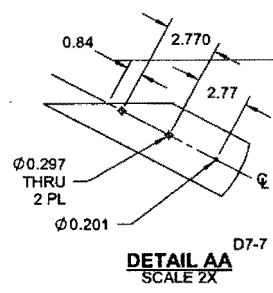
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DESIGN	SC	DART AEROSPACE USA, INC.	
DRAWN	SC	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		D4168	SHEET 7 OF 11
APPROVED		TITLE	SCALE
DE APPR.		350 SKIDTUBE ASSEMBLY	NTS
DATE	10.08.09	<small>COPYRIGHT © 2010 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	

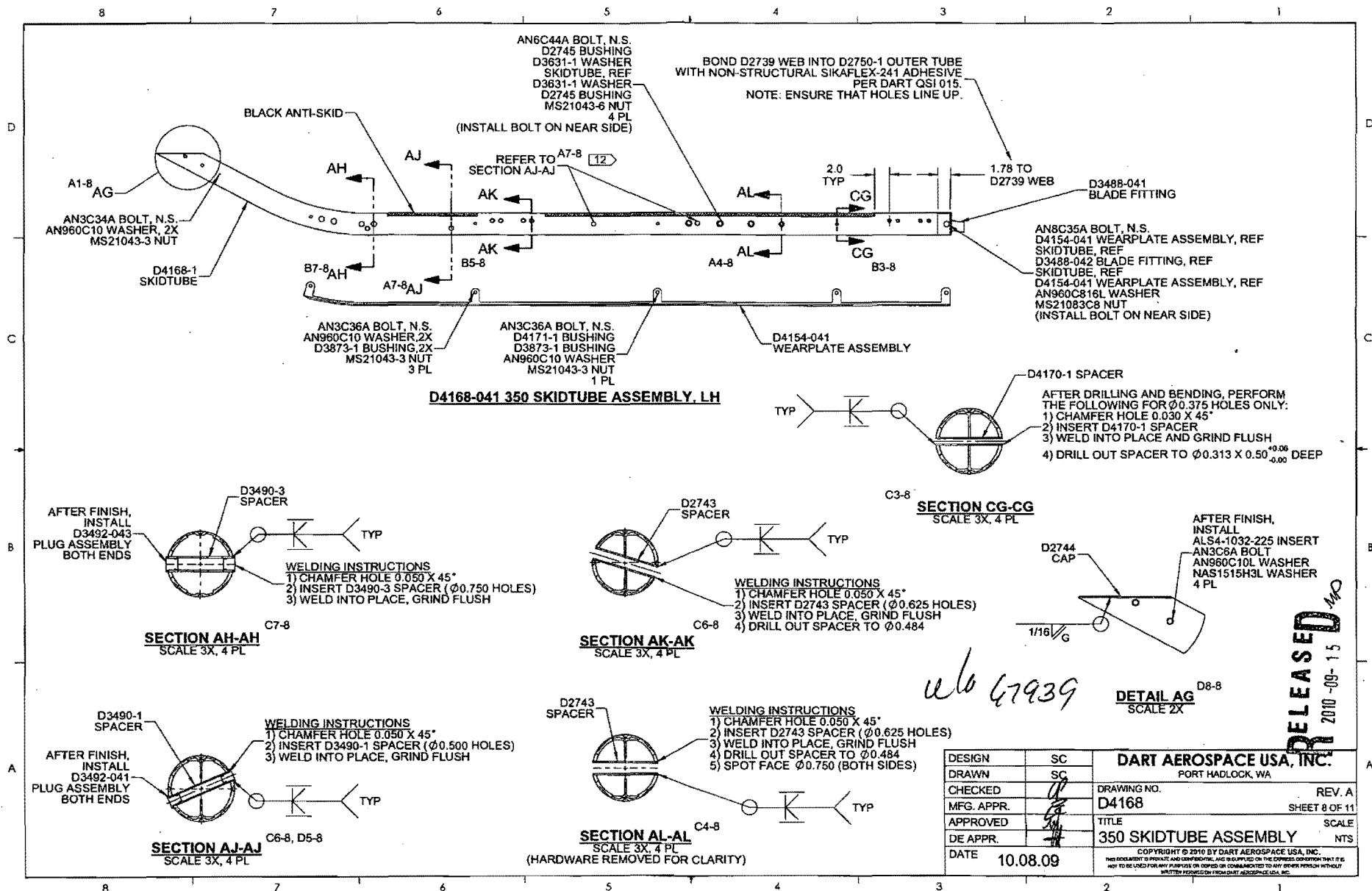
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



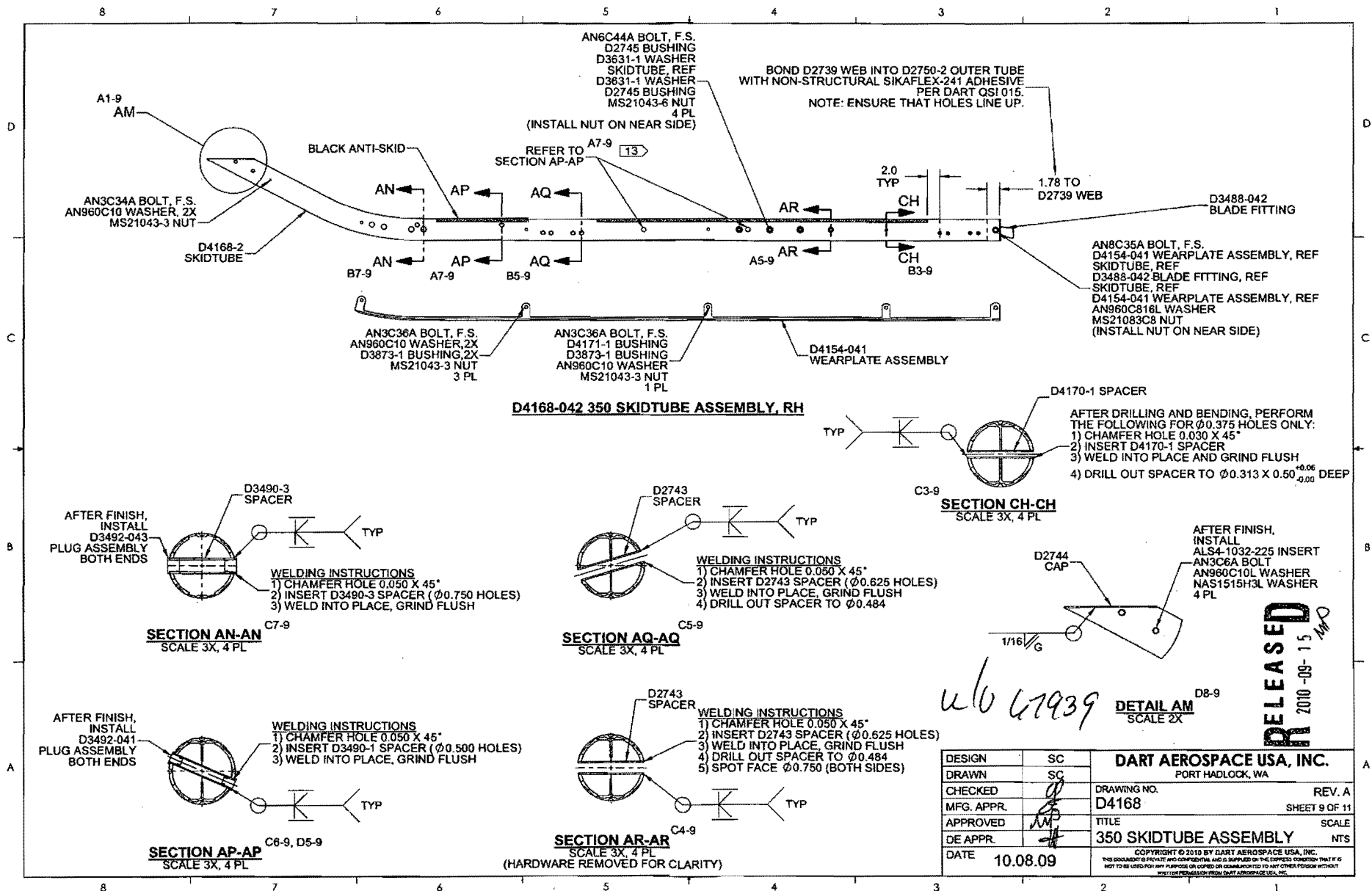
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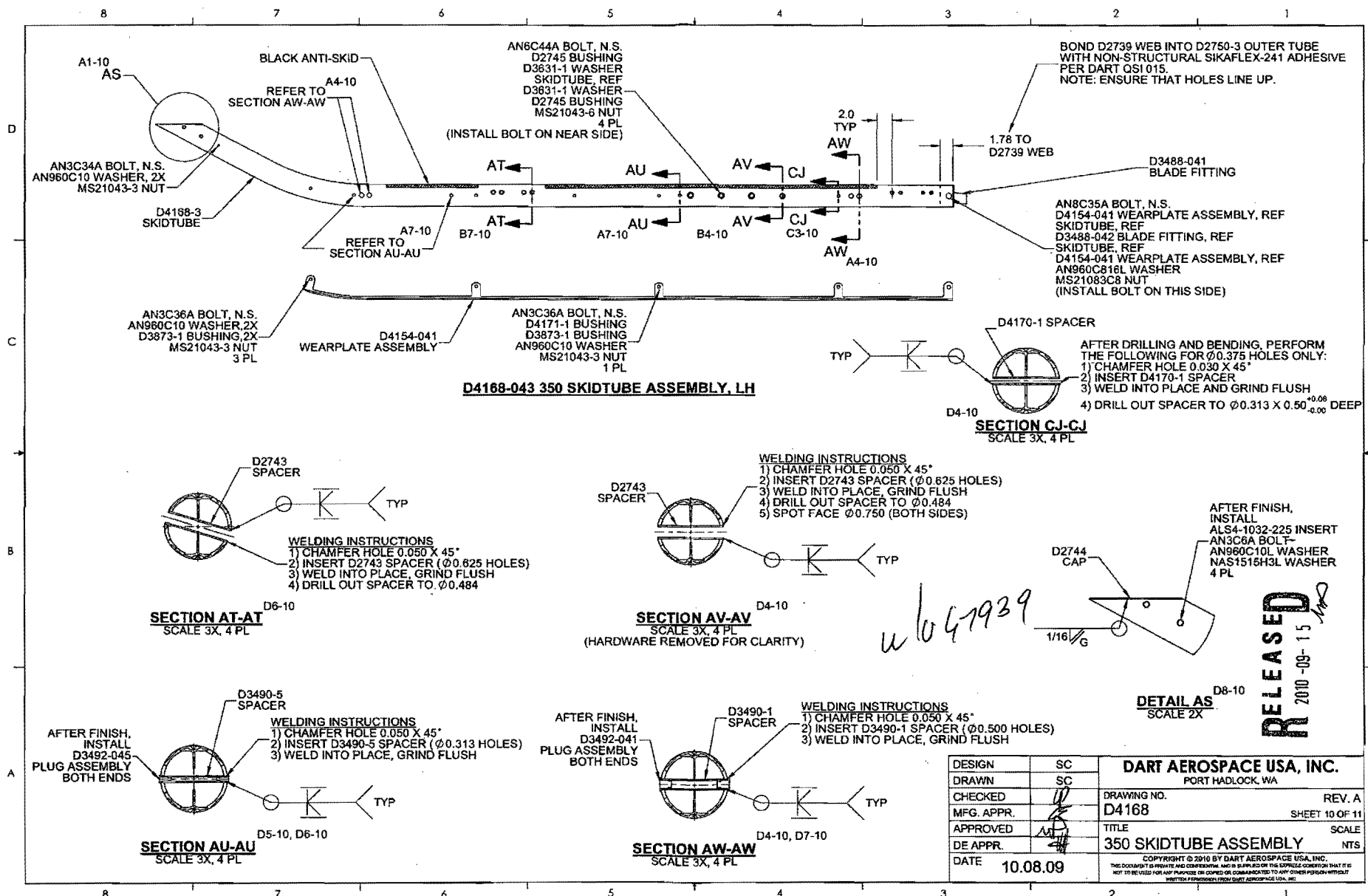
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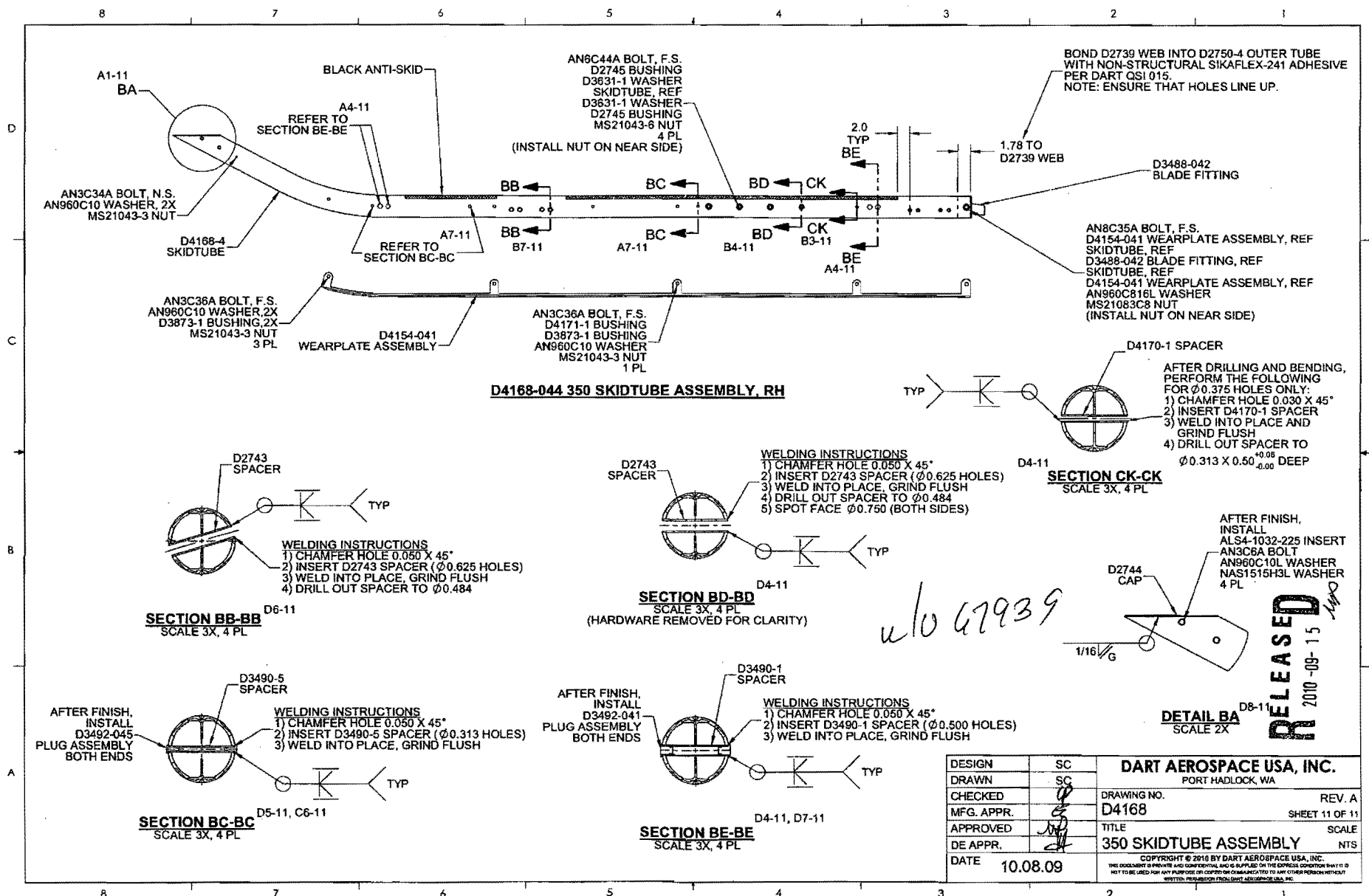
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